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August 12, 2005

  
**American  
Chemistry  
Council**  
Advancing Chemical Innovation  
Protecting Human Health and the Environment

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1201 Constitution Ave NW  
Washington DC 20460

8EHQ-0805-16044

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Attention: TSCA Section 8(e) Coordinator

Re: Methyl Oxirane (CASRN 75-56-9)  
8EHQ-05-16044 Supplement

Dear Sir or Madam:

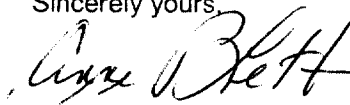
The American Chemistry Council's Propylene Oxide/Propylene Glycol (PO/PG) Panel (Panel), on behalf of its members,<sup>1</sup> is submitting the following supplemental information to the EPA pursuant to current guidance issued by EPA indicating EPA's interpretation of Section 8(e) of the Toxic Substances Control Act. The Panel has made no determination as to whether a significant risk of injury to health or the environment is actually presented by the findings reported in this submission or in the previous report of this ongoing study, dated June 2, 2005.

The test substance methyl oxirane (CASRN 75-56-9) – also known as propylene oxide – was administered by inhalation to groups of 8 male B6C3F1 mice and 8 male F344 rats at 0, 50, 100, 200, and 400 ppm for 20 days at 6 hours/day. The Panel's previous report concerned initial microscopic examination of nasal sections, which indicated that effects long known to occur in rats also may occur in mice in higher dose groups. This supplement is being made to report additional new findings in the mouse. As indicated in the first of the five attached graphs, which were provided by the study's principal investigator, there appears to be a statistically significant increase in numeric cell density in transitional epithelium in the mice exposed at 200 and 400 ppm.

The study that is the subject of the Panel's first submission and of this supplement is ongoing, and no written report of study results is yet available.

If you have any questions, please contact me at (703) 741-5630 or via email at [anne\\_lehuray@americanchemistry.com](mailto:anne_lehuray@americanchemistry.com).

Sincerely yours,



Anne P. LeHuray, Ph.D.  
Manager, Propylene Oxide/Propylene Glycol Panel  
Director, CHEMSTAR®



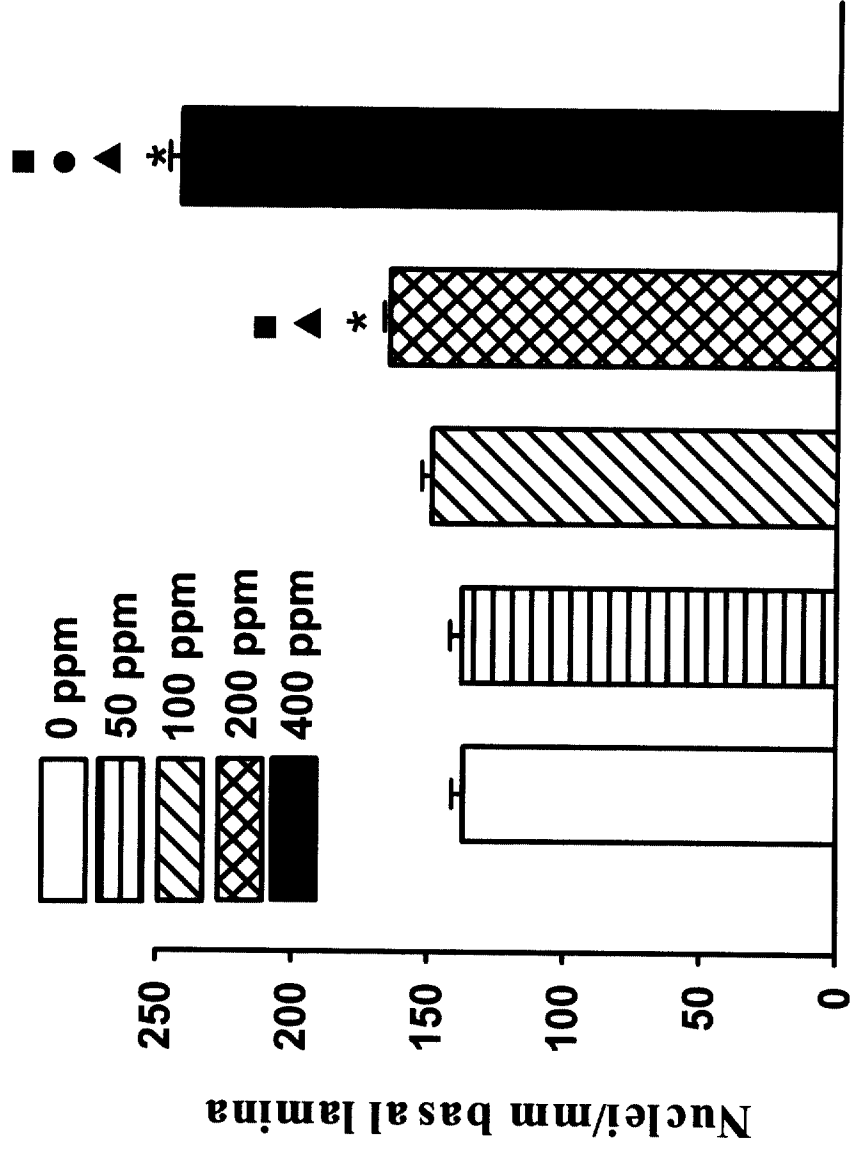
<sup>1</sup> PO/PG Panel members are The Dow Chemical Company, Huntsman Corporation and Lyondell Chemical Company.



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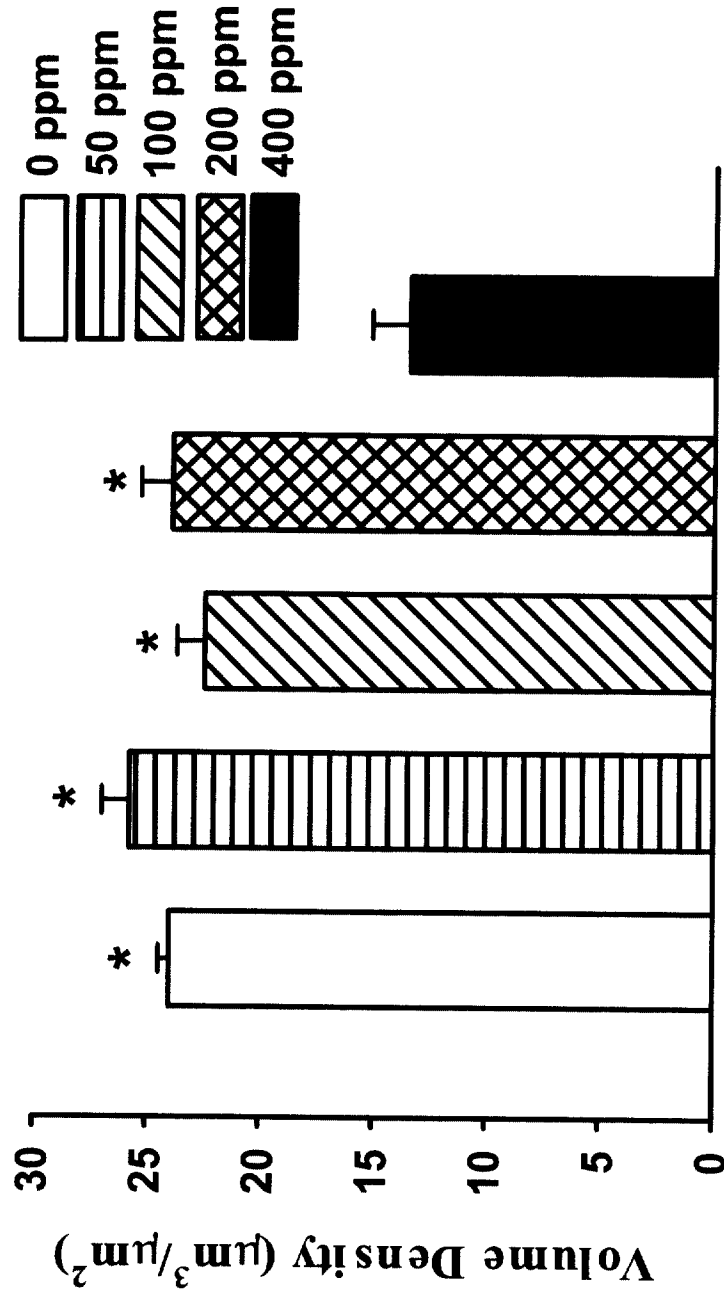
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# Numeric Cell Density of Transitional Epithelium Lining the Maxilloturbinate (T1 Nasal Section) in Mice Exposed to Propylene Oxide



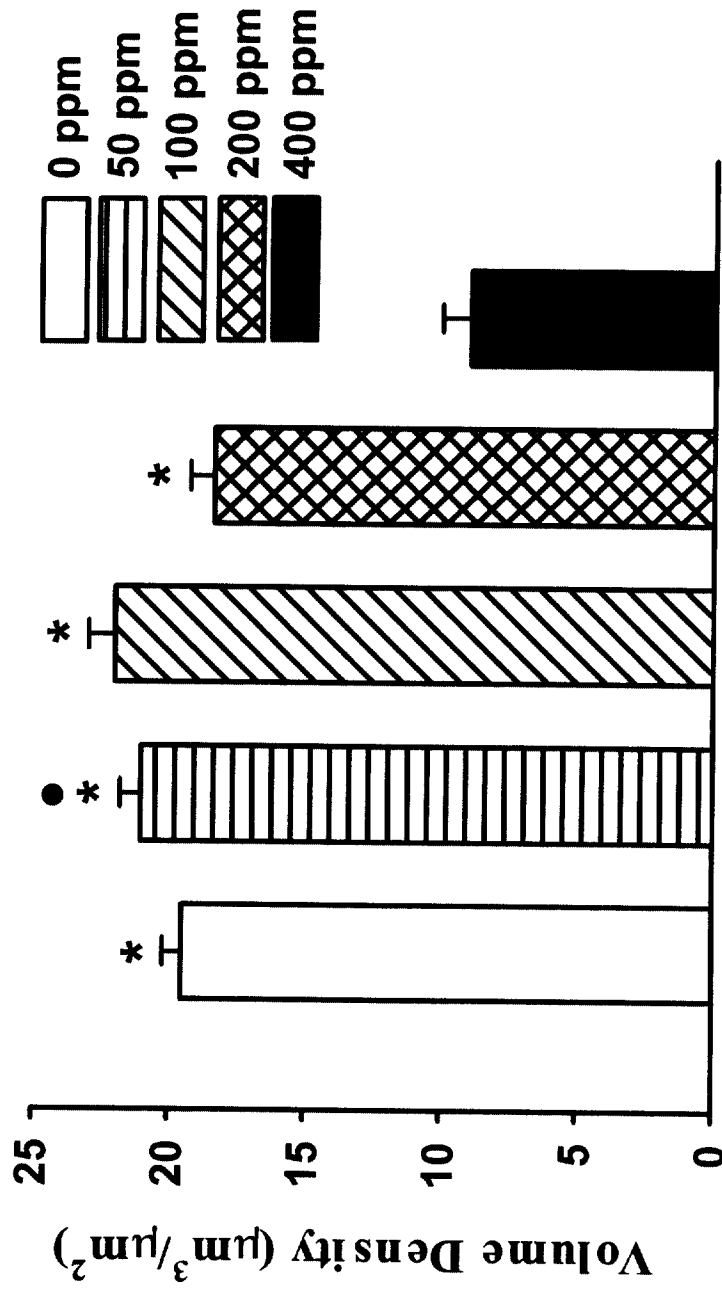
\* = Significantly different than 0 ppm group ( $p \leq 0.05$ )  
 ■ = Significantly different than 50 ppm group ( $p \leq 0.05$ )  
 ▲ = Significantly different than 100 ppm group ( $p \leq 0.05$ )  
 ● = Significantly different than 200 ppm group ( $p \leq 0.05$ )  
 n = 7 - 8 mice/group

# Cytoplasmic Volume Density of Olfactory Epithelium Lining the Dorsal Medial Meatus (T1 Nasal Section) in Mice Exposed to Propylene Oxide



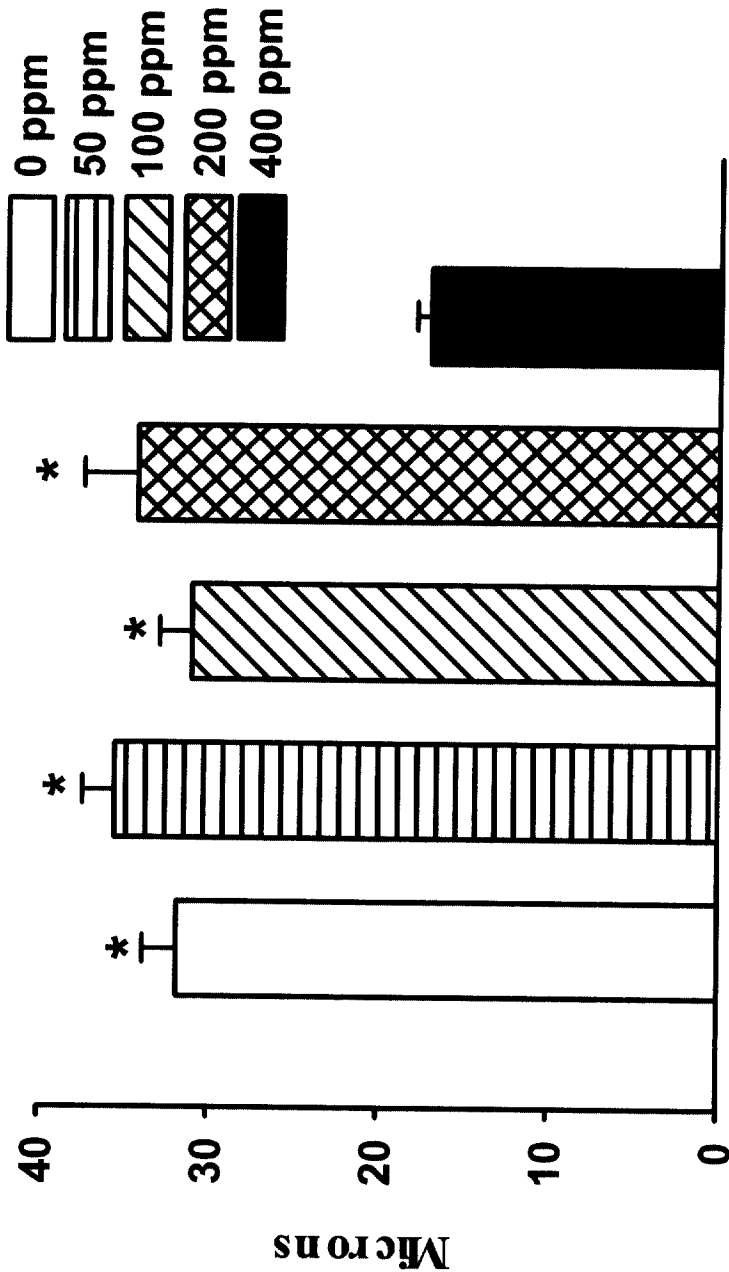
\* = Significantly different than 400 ppm group ( $p \leq 0.05$ )  
n = 7 - 8 mice/group

# **Nuclear Volume Density of Olfactory Epithelium Lining the Dorsal Medial Meatus (T1 Nasal Section) in Mice Exposed to Propylene Oxide**



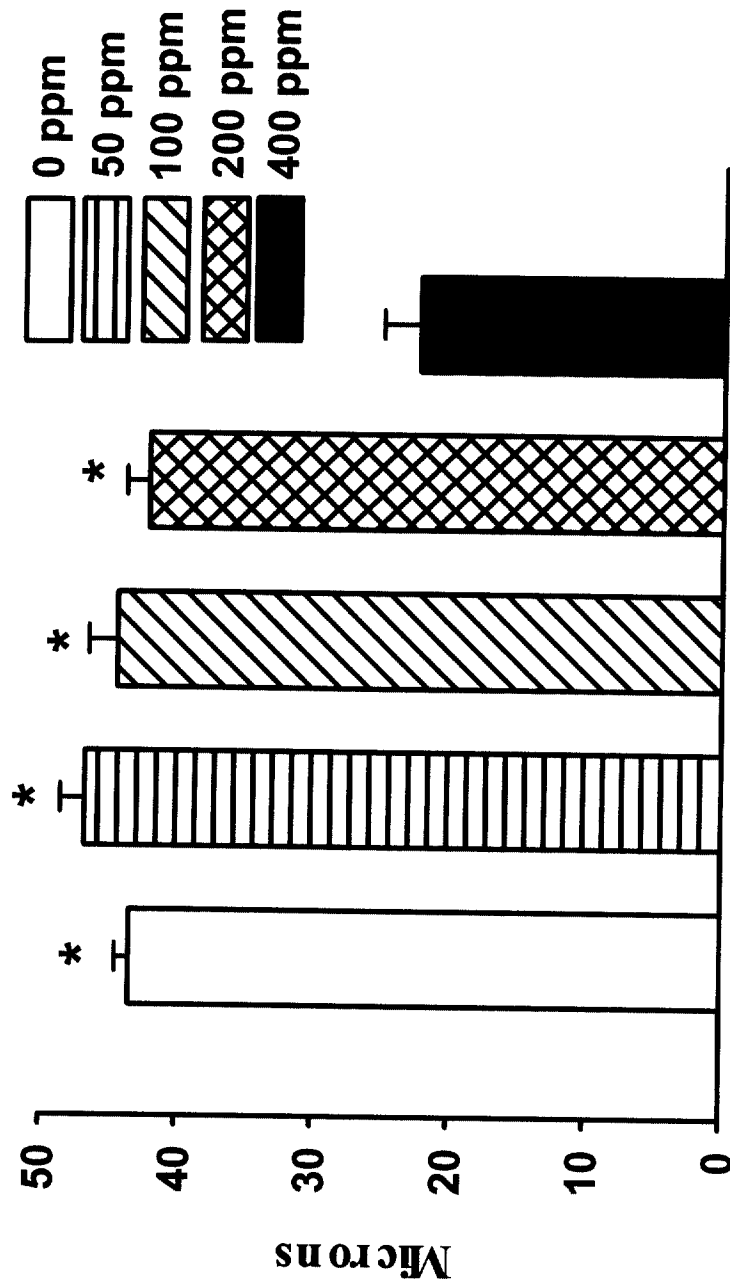
\* = Significantly different than 400 ppm group ( $p \leq 0.05$ )  
 • = Significantly different than 200 ppm group ( $p \leq 0.05$ )  
 n = 7 - 8 mice/group

**Thickness of Olfactory Lamina Propria Lining the Dorsal Medial Meatus (T1 Nasal Section) in Mice Exposed to Propylene Oxide**



\* = Significantly different than 400 ppm group ( $p \leq 0.05$ )  
n = 7 mice/group

# Thickness of Olfactory Epithelium Lining the Dorsal Medial Meatus (T1 Nasal Section) in Mice Exposed to Propylene Oxide



\* = Significantly different than 400 ppm group ( $p \leq 0.05$ )  
n = 7 - 8 mice/group